EN926-2:

1. 4.13.1 Inflation/take-off test

This test is to find out how difficult it is to take-off with this paraglider (including checking for undesirable tendencies).

Procedure

The inflation shall take place on a slope between 10 % and 33 %. It shall be carried out in headwinds of less than 8 km/h (measured about 1,5 m above the ground) and shall be repeated twice (to ensure the genuine behavior is established). The test pilot uses a normal forward launch technique (controls and A-risers in the hands, the other risers in the elbows, A-lines just tight, constant steady acceleration). If a special take off technique is required for a paraglider then this information shall be contained in the user's manual, and these instructions shall be followed by the test pilot.

Classification of a paraglider's behavior in the inflation/take-off test
Measurement and ranges Classification
Rising behavior
smooth, easy and constant rising A
overshoots, must be slowed down to avoid a front collapse C
hangs back D
Special take off technique required no A
yes C

HGMA:

3. 10 TAKE OFF WITHOUT EXPERT SKILL IN LIGHT WIND ON A SHALLOW SLOPE IN ACCORDANCE WITH THE FOLLOWING:

a) Wind of 5 mph or less, on a slope not steeper than 5 to one, or,

b) Wind of 6 mph or less, on a slope not steeper than 6 to one, or,

c) Wind of 7 mph or less, on a slope not steeper than 7 to one. Ground based video, or suitably framed onboard video must document the angle to the horizon of the slope, and the approximate speed of the wind, and then show a safe, controlled launch and departure which does not require the exercise of extraordinary skill. If this launch cannot be shown in accordance with the above specified wind and slope, then the glider must be skill rated and placarded for a USHGA Advanced Proficiency level, and the minimum slope steepness and wind speed required for safe launch must be documented in this section.

3. 20 TAKE OFF SAFELY CONTROLLABLE Ground based video, or suitably framed onboard video must show a launch and departure out of ground effect.

EN 926-2:

1. 4.13.2 Landing test

This test is to find out how difficult it is to flare and land this glider (including checking for undesirable tendencies).

Procedure

The pilot shall make a normal landing (straight final glide at trim speed) on level ground, into a wind of less than 8 km/h (measured about 1,5 m above the ground), using the controls only.

If a special landing technique is required for a paraglider then this information shall be contained in the user's manual, and these instructions shall be followed by the test pilot.

Classification of a paraglider's behavior in the landing test

Measurement and ranges Classification

Special landing technique required no A yes D

HGMA:

3. 140 LANDING WITHOUT EXPERT SKILL

3. 150 LANDING SAFELY CONTROLLABLE

Ground based video, or suitably framed onboard video must show a safe, controlled approach with turns and landing without the exercise of extraordinary skill. The image of the pilot should be sufficiently large and clear so that the pilot's control movements can be seen.

EN 926-2:

1. 4.13.3 Speeds in straight flight test

This test is to ensure that the paraglider is not too slow (hands up) and an adequate speed range is achievable using the controls only (not activating the accelerator).

Procedure

Assess the trim speed in 10 seconds stabilized straight flight and then the minimum speed in 10 seconds stabilized straight flight. (The speeds recorded in this test are not to be published.)

Classification of a paraglider's behavior in the speeds in straight flight test

Measurement and ranges Classification

Trim speed more than 30 km/h yes A no F

Speed range using the controls larger than 10 km/h yes A no F

Minimum speed less than 25 km/h A 25 to 30 km/h B

greater than 30 km/h D

HGMA:

No straight line flight requirements.

EN 926-2:

1. 4.13.4 Control movement test

This test explores the paraglider’s control force and control travel.

Procedure

Check the zero position and the symmetric stall position reference marks. The symmetric stall position is checked by stabilizing the paraglider in straight flight at trim speed. Over a period of five seconds gradually lower both controls to the symmetric stall position marks, being careful not to induce pitch oscillations. Hold this position until the paraglider rocks back entering a full stall. Assess the control forces throughout the procedure.

Classification of a paraglider's behavior in the control movement test

Measurement and ranges Classification

Symmetric control pressure Symmetric control travel

max. weight in flight up to 80 kg max. weight in flight 80 to 100 kg max. weight in flight greater than 100 kg

increasing greater than 55 cm greater than 60 cm greater than 65 cm A

increasing 40 to 55 cm 45 to 60 cm 50 to 65 cm C

increasing 35 to 40 cm 35 to 45 cm 35 to 50 cm D

increasing less than 35 cm less than 35 cm less than 35 cm F

approximately constant greater than 55 cm greater than 60 cm greater than 65 cm B

approximately constant 40 to 55 cm 45 to 60 cm 50 to 65 cm C

approximately constant 35 to 40 cm 35 to 45 cm 35 to 50 cm F

approximately constant less than 35 cm less than 35 cm less than 35 cm F

decreasing any distance any distance any distance F

HGMA:

Nothing comparable.

EN 926-2:

1. 4.13.5 Pitch stability exiting accelerated flight test

This test is only required for paragliders equipped with an accelerator. This test explores whether the behavior of the paraglider when the accelerator is quickly released.

Procedure

Stabilize the paraglider in straight flight at maximum speed. Then abruptly release the accelerator and assess the behavior.

Classification of a paraglider's behavior in the pitch stability exiting accelerated flight test

Measurement and ranges Classification

Dive forward angle on exit

dive forward less than 360° A

dive forward 30 to 60° C

dive forward more than 60° F

Collapse occurs no A yes F

1. 4.13.6 Pitch stability operating controls during accelerated flight test

This test is only required for paragliders equipped with an accelerator. This test explores the behavior of the paraglider after activating the controls in accelerated flight.

Procedure

Stabilize the paraglider in straight flight at maximum speed. Activate both controls symmetrically to 25 % of the symmetric control range within 2 s. Hold that position for 2 s. Then slowly release both controls.

Classification of a paraglider's behavior in the pitch stability operating controls during accelerated flight test

Measurement and ranges Classification Collapse occurs no A yes F

1. 4.13.7 Roll stability and damping test

This test checks that the paraglider returns to normal flight from large control input and that roll oscillations are damped.

Procedure

Induce the maximum possible roll angle achievable by quickly activating and releasing each control in turn to the symmetric stall position marks once without inducing a stall, spin or collapse. The timing of the control inputs is selected by the test pilot to maximize the roll angle. Then observe the glider's immediate behavior.

Classification of a paraglider's behavior in the roll stability and damping test

Measurement and ranges Classification

Oscillations reducing A not reducing F

HGMA:

No comparable flight tests.

EN 926-2:

1. 4.13.8 Stability in gentle spirals test

This test checks the glider's behavior during and exiting gentle spirals.

Procedure

Stabilize the glider in straight flight at trim speed. By use of the controls only, direct the paraglider into a gentle spiral between 3 and 5 m/s sink rate, such that the least stable behavior (least tendency to exit the turn) is established. Maintain this sink rate for one turn. Then release the controls over a period of 2 seconds and observe the paraglider's behavior. If the turn clearly tightens, the pilot acts to recover the glider. Otherwise the pilot waits for two turns to establish the glider's behavior. The pilot shall not counteract inertia effects on his body at any stage.

Classification of a paraglider's behaviour in the stability in gentle spirals test

Measurement and ranges Classification

Tendency to return to straight flight spontaneous exit A

turn remains constant C

turn tightens F

HGMA:

3. 50 SPIRAL STABILITY

Ground based video, or suitably framed onboard video must show the pilot flying a minimum of 2 complete circles in a coordinated 15 to 20 degree banked turn, with the pilot centered or below center on the control bar. Pilot/glider image in frame must be of sufficient size and clarity to adequately document the requirement. Turns in both directions are required.

EN 926-2

1. 4.13.9 Behavior in a steeply banked turn test

This test explores the glider's tendency to enter a steep spiral dive.

Procedure

Stabilize the glider in straight flight at trim speed. Without using a counter-turn, and by steadily activating the inside control, quickly direct the paraglider into the steepest possible spiral dive achievable in two turns (without inducing a spin or a collapse). Measure the descent rate. The pilot shall not counteract inertia effects on his body at any stage. The sink rate is recorded and may be published.

Classification of a paraglider's behavior in the steeply banked turn test

Measurement and ranges Classification

Sink rate after two turns up to 12 m/s A

12 to 14 m/s A

more than 14 m/s B

HGMA:

No comparable tests.

It is at this point that I got tired of the comparison. There were pages more of tests required under EN 926-2 and just a few paragraphs of HGMA flight tests. The required pilot maneuvers for the EN 926-2 tests just seemed endless and there would likewise be many required pilot maneuvers detailed in the paraglider manual that the pilot had to practice and remember in order to successfully fly a given paraglider.